REMARKS

Claims 1-13 have been canceled and new claims 14-25 have been added to the application. The new claims are believed to be definite under the second paragraph of 35 U.S.C. § 112 and to be novel under 35 U.S.C. § 102 and patentable under 35 U.S.C. § 103(a) over the prior art cited in the Action.

In the Action, claims 1-3, 5-7 and 13 are rejected under the second paragraph of 35 U.S.C. § 112 as being vague and indefinite as to what is meant by "characterized".

This rejection is not understood. 37 C.F.R. § 1.436 expressly provides that claims of an international application shall adhere to PCT Rule 6. PCT Rule 6.3 provides that claims shall contain a characterizing portion - preceded by the words "characterized in that," "characterized by," "wherein the improvement comprises," or any other words <u>to the same effect</u>. It is clear from 37 C.F.R. § 1.436 that the term "characterized" is considered to have the same meaning as "comprising". Also, applicants do not understand why the USPTO would consider the term "characterized" to be clear and definite in international applications but not definite in a a regularly filed U.S. application.

The Office also states that it is unclear as to whether a

Jepson type format is intended. Applicants believe that it is clear from the format of the claims and, particularly, the use of the term "characterized" that a Jepson type format is currently being used.

Claim Rejections - 35 USC § 102

Claim 13 is rejected in the Action under 35 U.S.C. 102(b) as being anticipated by WO 87/05536. This rejection is now moot in view of the cancellation of claim 13.

Claim Rejections - 35 USC § 103

Claims 1-3 and 5-7 rejected under 35 U.S.C. 103(a) as being unpatentable over WO 87/05536 in view of Lamb. Applicants respectfully submit that this rejection is not proper for the reasons explained below.

U.S. 2,5517,325 (Lamb), Fig. 2 and 3, discloses a device where the magnet strength of field can be adjusted. For example, in Column 3, lines 31-43, it is described: "As shown in Figure 2, the magnet 19 is well extended from the soft-iron tube 13 and the relatively large field of magnetic influence is indicated by the dotted lines. Under this condition the effective distance of the magnetic flux from the outer free end of the magnet is a maximum. Figure 3, on the other hand, shows the magnet 19 substantially fully retracted within the soft-iron tube 13. In this case the

lines of magnetic flux pass directly to the soft-iron tube and the effective field of the magnetism from the free end of the magnet is a minimum."

Adjusting of the strength of the magnetic field is essential to the invention of Lamb. It is useful, for example, when extracting a splinter from the eye or skin. However, if this device should be used for collecting small iron particles, it is also essential that altering the strength of magnetic field does not effect the area where the particles will be collected. Any strength of magnetic field will collect particles only by the magnetic pole at the outer end of the magnet. By increasing the strength of the magnetic field the collecting area will not be increased.

Therefore, the statement in the Action (page 6, lines 13-15) that: "Furthermore, with Lamb's apparatus the area where his ferromagnetic particles are collected and released is almost the entire length of his permanent magnet (19)" is not correct.

Other cited prior art documents also present only one magnet having only one magnetic pole outside a ferromagnetic tube. this means that the particle collecting area of those devices can be only one small point at the tip of the magnet.

In WO 87/05536, a permanent magnet movable inside a plastic

cover is used for the collection of ferromagnetic material from a liquid containing such material. When the magnet is in a low position, ferromagnetic material is collected in the central part a magnet unit. The specification of the WO publication describes the transfer of the ferromagnetic material thus collected into a solution in another vessel and the release of the material from the tip part into the other vessel. The release of the ferromagnetic material is described as being accomplished by means of a design of the plastic cover that prevents the material from moving when the magnet is being moved upwards to decrease the strength of the magnetic field.

On the other hand, the present invention is a method for adjusting the collecting area, not the strength of the magnetic field. It is essential that a large collecting area can collect more particles than a small area.

In the first embodiment of the invention a large collecting area is used. The large area is very useful for the efficiency of the collecting phase. The device embodiments show how this large area will be achieved. The main difference compared to the prior art is that in the collecting phase there are at least two magnetic poles or parts of at least two magnetic poles outside the ferromagnetic tube. In Fig. 9D only parts of two magnetic poles

are outside the ferromagnetic tube, but the collecting area is still large. Different collecting phases of the particles are presented in the drawings (Fig. 3A, Fig. 6A, Fig. 8A, Fig. 9B).

According to the first embodiment the collected particles will be dosed by adjusting the magnetic area, not the strength of the magnetic field, so that in the dosing phase the magnetic area will be decreased or removed completely (Fig. 5C, Fig. 5E, Fig. 6C, Fig. 6E, Fig. 7C, Fig. 7E, Fig. 8C, Fig. 8E). In the prior art the particles are close to the magnetic pole at the point of the magnet until the strength of the magnetic field is decreased or disappears so much that the particles will be released.

According to the second embodiment of the method of the present invention, there is also a concentration of particles. The particles are collected and dosed as described in the first method embodiment, but the particles are also concentrated. The concentration is produced so that the particles can be collected from a large amount of liquid (Fig. 9B) and dosed into a small amount of liquid (Figs. 9D-9G). This could not be done in the prior art because there were not devices according to this invention. The known devices, which can be inserted into small vessels, can collect only very small amounts of particles. As mentioned above the known devices have only one small point at the

end of a magnet for collecting particles. And if the known device is big enough for colleting larger amounts of particles, it is too big to be inserted into a small vessel.

According to the third of the method of the present invention the concentration is done between the collecting phase and the dosing phase. The particles are concentrated by adjusting and decreasing the collecting area (Fig. 6B, Fig. 8B). As mentioned in the first embodiment the particles are collected on a large area on the surface of the cover or coating outside the magnet (Fig. 6A, Fig. 8A). In the concentration phase that area will be decreased by moving the magnet or the ferromagnetic tube accordingly. In this phase the particles move to a smaller group but they will stay together because the magnet keeps the particles gathered on the protective coating. This phase may happen in the same vessel where the particles were collected or in another vessel.

In the third embodiment the particles collected efficiently by using the large area can be concentrated to a small area, which is so small that it almost is like a point at the end of the magnet. This method differs essentially from the known method where the particles were collected straight to the end of the magnet. Collecting straight to the end of the magnet is very inefficient. It is much more efficient according to the invention to collect

first to a large area and then toconcentrate the collected particles.

After the concentration described above the particles can be dosed straight to a very small vessel (Fig. 9G). It can be even much smaller than the vessel in Fig. 9G.

The first embodiment of the device of the present invention is a device having a magnet, which is magnetized transverse to the longitudinal axis of the ferromagnetic tube (Fig. 6A, Fig. 8A). In this case the magnetic poles are along the whole length of the magnet. This embodiment gives the largest particle collecting area, because all the area which is outside the ferromagnetic tube will be the collecting area for the particles.

The second embodiment of the device is a magnet, which is magnetized in the direction of the longitudinal axis of the ferromagnetic tube. However, because only the poles of the magnet can collect particles, there must be more than one pole outside the ferromagnetic tube. In Fig. 3A there are two poles outside the tube.

The third embodiment of the device is a magnet which comprises more than one magnet. This feature is described in the specification at page 7, lines 32-34.

On the other hand, the magnet may also consist of a number of separate magnets, which may be similar or dissimilar to each other and which may be held together by the magnetic force or by a material, which is either ferromagnetic or non-ferromagnetic.

New claims 14-25 recite the various embodiments of the method and the device of the present invention in terms which distinguish over the art cited in the Action. Removal of the rejections in the Action is believed to be in order and is respectfully solicited.

The foregoing is believed to be a complete and proper response to the Office Action dated June 26, 2008.

In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension and any additional required fees may be charged to Deposit Account No. 111833.

Respectfully submitted,
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